INDEX TO VOLUME 48

New names and the final members of new combinations are in **bold face type.**

Acacia **quadricostata,** 332
Acaciophyllites, 69, 70
Acaciophyllum, 59
Acer, 59, 67, 71
Acerates, 60, 69, 72
Achillea, 102
Aconitum, 319; Bakeri, 320; columbianum, 318; insigne, 320; lutescens, 320; porrectum, 318
Actaea, 93
Actartife, 92; cuneifolia, 92
Actinocamax quadratus, 66
Adenola, 93; grandiflora, 93
Aechmea Fendleri, 328; **porteoides,** 328
Aecidium, 34; Tithymali, 34
Aethionema, 91
Agar gel, On the gross structure of an, 173
Agaricus ambionensis, 287
Agoseris arachnoidea, 322; arizonica, 322; attenuata, 322; laciniata, 321; leptocarpa, 322; maculata, 322; purpurea, 322
Agropyron molle, 322; Smithii, 322
Agrostis alba, 316; asperifolia, 317; Bakeri, 318; depressa, 316, 319; grandis, 317; humilis, 317; idahoensis, 317; melaleuca, 318; Rossae, 318
Air chambers of Reboulia hemisphaerica, The, 241
Aldinia, 93; glechomoides, 93
Alifolia, 92; dichotoma, 92
Alisma brevipes, 316, 322; natans, 93
Alismaphyllum, 59, 63, 69
Allium Brandegei, 324; Geyeri, 324; recurvatum, 324
Allodus Erigeniae, 33; opposita, 33
Allosandra, 93; verbenifolia, 93
Aloe, 94; margaritifera, 94; retusa, 94
Alopecurus aristulatus, 316, 317; occidentalis, 318
Alpinia **silvicola,** 329
Alseuosmia, 152
Alsionopsis macrantha, 319
Alsine calycantha, 317; obtusa, 317; strictiflora, 317
Amaranthus Powellii, 320
Amarella scopulorum, 324
Amauroderma, 289; Elmerianum, 289
Ammania, 91; auriculata, 91
Amorpha, 93
Andromeda, 57, 67, 71; cretacea, 57; elegans, 57; novae-caesareae, 57; Parlatorii, 57; Wardiana, 57
Androsace diffusa, 319; filiformis, 319; subulifera, 319
Androvettia, 57
Anemone globosa, 33, 323; stenophylla, 37
Anethum graveolens, 10
Angelica pinnata, 318
Aniketon, 94; coriaceum, 94
Anistelma, 92
Anogra coronopifolia, 322; latifolia, 322
Anomalies in maize and its relatives—I, 253
Antennaria, 323; anaphaloides, 324; concinna, 323; corymbosa, 321; flavescens, 323; oblanceolata, 323; pulcherrima, 324; rosea, 323; rosulata, 325
Anthropogon thermalis, 318, 321
Anthriscus cerefolium, 10
Anticlea elegans, 321
Antigonon, 80, 81, 83; leptopus, 83
Antimion, 94; tomentosum, 94
Antirrhinum, 95; majus, 10, 95; Orontium, 95
Antrizon, 95; tenuifolium, 95
Apium graveolens, 2, 9; graveolens rapaceum, 9
Apium graveolens by Septoria Apii, The relation of the health of the host and other factors to infection of, 1
Apocynophyllum, 60, 64, 67, 69, 72
Aquilegia saximontana, 326
Arabis, 323; connexa, 323; dentata, 92; Drummondii, 323; ovata, 321; retrofracta, 323; rhodantha, 321
Aragallus albiflorus, 321, 323; Hallii, 326; minor, 325
Aralia, 71; eutawensis, 57; wellingtoniana, 71
Araucaria, 57; bladensis, 57, 65, 69; Jeffreyi, 58, 65, 69
Arenaria, 323; Burkei, 323; confusa, 326; congesta, 323; polycaulos, 326
Argentina Anserina, 317; argentea, 317
Arnica foliosa, 318, 322; fulgens, 321;

longifolia, 317; mollis, 324; Parryi, 324; rhizomata, 318; Rydbergii, 321
Artemisia biennis, 320, 321
ARTHUR, J. C., New species of Uredineae—XIII, 31
Artocarpus, 64, 67, 70
Artorhiza, 94
Asarina, 95
Aspidosperma, 299; eburneum, 299; Vargasii, 298, 299, 303, 304, 306
Asplenium, 59; alatum, 122; calopteris, 69
Aster andinus, 324; apricus, 324; Burkei, 317; campestris, 323; occidentalis, 317
Astragalus goniatus, 321; striatus, 321, sulphurescens, 321
Atevala, 94; imbricata, 94
Atirbesia, 94
Atlantic coastal plain, XIV.—Tennessee, Contributions to the Mesozoic flora of the, 55
Auticon Botanikon (1840), "Unrecorded" genera of Rafinesque, I—, 89
Aytonia, 242

Balsamorrhiza sagittata, 324
Banalia, 93; muricata, 93
Banara **Brittonii,** 342
Basidiomycetes—IV, Philippine, 285
Batrachium Drouetii, 316; flaccidum, 316; trichophyllum, 316
Bauhinia alabamensis, 58; ripleyensis, 70
Bazina, 93; nudiflora, 93
Beckmannia erucaeformis, 317
Berberis vulgaris, 263, 264, 266, 269
Berberis vulgaris in Pennsylvania, Distribution of, 263
BERRY, EDWARD W., Contributions to the Mesozoic flora of the Atlantic coastal plain, XIV.—Tennessee, 55
Beta vulgaris, 10, 26
Blairia, 92; pentandra, 92
BLAKE, S. F., Neomillspaughia, a new genus of Polygonaceae, with remarks on related genera, 77
Bocconia cordata, 92
Boletus gilvus, 285; hirsutus, 294; impuber, 285; nigromarginatus, 294; zonalis, 287
Bolivian species of Centropogon and Siphocampylus, A rearrangement of the, 189
Boltonia, 92; asteroides, 92
Botrytis, 24
Bouteloua gracilis, 325
Boxwoods of commerce, 297
Brachyphyllum, 57; macrocarpum formosum, 58
Braxilia, 94; parvifolia, 94
Bremia Lactucae, 24
BRITTON, NATHANIEL LORD, Studies of West Indian plants—X, 327
Brodiaea, 38
Bromelia **aurea,** 328; chrysantha, 328
Brunnichia, 81, 82; africana, 82; africana glabra, 82; cirrhosa, 82, 83; congoensis, 82; erecta, 82
Bucranion, 95; spicatum, 95
Bumelia, 59, 67, 72, 93
Buxus japonica, 297; Macowani, 298, 303–305; sempervirens, 297, 303–305

Caesalpinites, 59, 69, 70
Calamagrostis, 316; canadensis, 25, 317; elongata, 317; hyperborea, 317; purpurascens, 324, 325
Calathea **trinitensis,** 329
Callitriche autumnalis, 316, 318; palustris, 316, 318
Calochortus acuminatus, 321; Gunnisoni, 321; Nuttallii, 321
Calophyllum inophyllum, 295
Caltha rotundifolia, 318
Calycites, 69, 72
Campanula Parryi, 321, 323; petiolata, 324
Campderia, 77, 78; floribunda, 77; paniculata, 78, 85
Capnodes aureum, 321
Capparis, 59, 62, 67, 70, 331
Caprifoliaceae, Notes on Viburnum and the assemblage, 149
Cardamine cordifolia, 316, 319; infausta, 316, 319; pennsylvanica, 317
Carex, 316; aquatilis, 317; athrostachya, 317; aurea, 317; brunnescens, 317; Buxbaumii, 317; canescens, 317; concinna, 324; diandra, 317; disperma, 317; Douglasii, 323; ebenea, 318; gynocrates, 317; Halleri, 324; Hoodii, 323; interior, 321; Kelloggii, 317; lanuginosa, 317, 321; leptalea, 317; obtusata, 323; paupercula, 317; phaeocephala, 323; praticola, 325; pseudoscirpoidea, 318, 321; Raynoldsii, 317; retrorsa, 317; Rossii, 324; rostrata, 317; siccata, 322; simulata, 317; stenophylla, 321, 325; tenuirostris, 317; viridula, 317
CAREY, CORNELIA LEE, On the gross structure of an agar gel, 173
Cargila, 91; dichotoma, 91
Cargilla, 91
Carpolithus, 69, 72
Carum Carvi, 10

Casearia praecox, 298, 299, 303, 304, 306
Castilleja brunnescens, 321; exilis, 317; linearifolia, 323; sulphurea, 318; wyomingensis, 318
Catabrosa aquatica, 316
Cavendishia **Urichiana,** 336
Cedrela, 59, 62, 67, 71
Celastrophyllum, 60, 64; carolinensis, 71
Celosia virgata, 95
Celtis, 59, 62, 67, 70
Centaurea americana, 32
Centropogon and Siphocampylus, A rearrangement of the Bolivian species of, 189
Centropogon, 189–191, 194; **aggregatus,** 199; amplifolius, 200; Bangii, 200, 201; Brittonianus, 193; Brittonianus brevidentatus, 194; cardinalis, 201; gloriosus, 194; Herzogi, 200; incanus, 193; magnificus, 200; Mandonis, 194, 200; roseus, 200; surinamensis, 200; unduavensis, 199; yungasensis, 199
Cephalotaxospermum, 57; carolinianum, 58
Cerastium, 324; strictum, 324
Cercospora, 3; beticola, 26
Chaetocyperus Jamesoni, 327
Chamaerhodos Nuttallii, 323
Chara, 141–146; fragilis, 142, 143; verrucosa, 142, 143
Chara, Chondriomes in, 141
Cheirinia Wheeleri, 323
Chondriomes in Chara, 141
Chrysobalanus **savannarum,** 331
Chrysophyllum, 60, 62, 67, 72; **minutiflorum,** 337
Chrysopsis caudata, 323; pumila, 325; resinolens, 323; villosa, 322
Cinnamomum, 57, 60, 63; Heerii, 58; Newberryi, 58, 71
Cirsium Centaureae, 320; coloradense, 320; Eatonii, 320; foliosum, 320; griseum, 320; oreophilum, 320; Parryi, 320; scopulorum, 320
Cissites, 59, 69; crispus, 65, 71; panduratus, 66, 71
Citrus canker, A study of the structure of the stomata of two species of Citrus in relation to, 101
Citrus, 101, 102, 105, 106; grandis, 102; nobilis, 102; nobilis Szinkum, 102
Cladophora, 178
Claytonia rosea, 321
Clementsia rhodantha, 318
Clethra, 91
Clitoria, 93
Clusia **tocuchensis,** 333
Coccoloba, 77, 78, 81
Codomale, 93; purpurascens, 93
Codonanthe **triplinervia,** 339
Coix, 254, 255; lachryma-Jobi, 254
Coleosporium Pini, 36
Collomia linearis, 321, 324
Combretum **trinitense,** 334
Conocephalum, 245
Contributions to the Mesozoic flora of the Atlantic coastal plain, XIV.—Tennessee, 55
Convallaria, 93
Coriandrum sativum, 10
Coriolopsis bataanensis, 293; caperata, 294; Copelandii, 292; occidentalis, 295; semilaccata, 287; subcrocata, 295
Coriolus nigromarginatus, 294
Cornophyllum, 60, 67, 69, 71
Cornus florida, 301
Credneria, 70
Crepis, 323
Croton, 93
Crunocallis Chamissonis, 316, 319
Cryptantha Torreyana, 326
Cryptotaenia canadensis, 10
Cucubalus quadrifidus, 92; stellatus, 92
Cunninghamites, 69; elegans, 69
Cupressinoxylon, 57, 58
Cynomarathrum Nuttallii, 323
Cyrilla, 91

Dalbergia, 59, 67, 70
Dammara acicularis, 69
Daphne Tartonraira, 95
Dasiphora, 95; riparia, 95
Dasyspora, 31, 39, 40, 42; Adenostegiae, 42; cinnamomea, 42; foveolata, 39
Dasystephana affinis, 324; Forwoodii, 324
Daucus Carota, 10
Delphinium, 319; cucullatum, 320; elongatum, 320; multiflorum, 320; occidentale, 320; ramosum, 320; reticulatum, 320; robustum, 320
Dematra, 94; sericea, 94
Deschampsia caespitosa, 317
Development of prothallia and antheridia from the sex organs of Polypodium jrioides, The, 271
Dewalquea, 57; Smithii, 58
Dilax, 94; muricata, 94
Dillenites, 60, 62, 67, 69, 71
Dioscorites, 59, 62, 69
Diospyros, 57; **ierensis,** 336; primaeva, 58
Diplandra, 92; decurrens, 92
Dipleina, 93; umbellata, 93

Dipteropodium, 82
Dipterostemon, 38
Distichlis stricta, 322
Distribution of Berberis vulgaris in Pennsylvania, 263
Dodecatheon pauciflorum, 317; philoscia, 318; radicatum, 318
Dondia erecta, 322
Doryanthites, 69; cretacea, 58, 72
Draba, 324; lutea, 325; nemorosa, 321, 324; nitida, 324
Drymocallis convallaria, 321; glandulosa, 321
Dryophyllum, 59, 67, 69, 70; gracile, 65, 70
Dryopteris Stephensoni, 69
Dryopterites, 69
DUPLER, A. W., The air chambers of Reboulia hemisphaerica, 241

Ebraxis, 92
Elaphrium **trinitensis,** 333
Elatine, 95
Elephantella groenlandica, 317
Eleocharis acicularis, 318, 319; **oropuchensis,** 327; palustris, 316; **savannarum,** 327
Elfvingia tornata, 290
Elisma, 93
Elymus ambiguus, 326; simplex, 322
Enterolobium cyclocarpum, 35; Saman, 286; Timbouva, 35
Epilobium, 319; adenocaulon, 318, 320; americanum, 318; brevistylum, 317; Drummondii, 318; occidentale, 317, 320; ovatifolium, 318; Palmeri, 320; paniculatum, 326; rubescens, 320; stramineum, 318, 320; wyomingense, 318
Equisetum arvense, 317; pratense, 317; variegatum, 317
Erica, 95
Erigenia bulbosa, 33
Erigeron consobrinus, 321; flagellaris, 323; lonchophyllus, 318; minor, 318, 319; salsuginosus, 317; ursinus, 325; viscidus, 324
Eriocoma hymenoides, 326
Eriogonum, 323, 325; ovalifolium, 324; stellatum, 323; umbellatum, 323
Eriophorum angustifolium, 317; gracile, 317
Eriphyla, 66
Erxlebenia, 94
Erysiphe, 25
Erythrina **pallida,** 332
Erythronium parviflorum, 324; utahense, 324
Esenbeckia Atata, 299
Eubrunnichia, 82
Eucalyptus, 302
Eucoccoloba, 77
Eugenia, 60; **Baileyi,** 334
Euhemus, 94; officinalis, 94
Euphorbia mellifera, 94; Palmeri, 33; villosa, 94
Euphorbiophyllum, 69; antiquum, 65, 71
Eurotia lanata, 324
Evactoma, 92; stellata, 92
EVANS, ALEXANDER W., Taxilejeunea pterogonia and certain allied species, 107
Evolvulus alsinoides, 337; **bocasanus,** 337
Exemix, 92; grandiflora, 92
Exogyra, 66

Fagus, 59, 67, 70
Fedia, 93
Fenixanthes, 94; splendens, 94
Festania, 93; nivea, 93
Festuca, 324; arizonica, 323; ingrata, 323, 324; rubra, 324; saximontana, 324; Thurberi, 323
Ficus, 57, 63, 64; **arimensis,** 330; celtifolius, 70; crassinervia, 330; crassipes, 58, 70; georgiana, 70; **ierensis,** 329; Krausiana, 58, 65, 70; Leei, 70; **Mendelsonii,** 330; ovatifolia, 58; Urbaniana, 330
Fimbriaria, 242, 243; californica, 242; echinella, 243
Foeniculum officinale, 10
Fomes, 292; australis, 289; endotheius, 290; exotophrus, 290; fastuosus, 291; lamaensis, 291; lineatus, 291; lingua, 288; **Merrittii,** 291; mortuosus, 292; pectinatus, 292; pullus, 292; roseoalbus, 292; roseus, 287; semilaccatus, 287; spadiceus, 291; umbraculum, 289; Williamsii, 291
Fragaria pauciflora, 321
Fuisa, 94; rupestris, 94
Funaria hygrometrica, 275
Fungus digitatus, 287; elatus-coclearis, 287

Galium subtriflorum, 317
Gallowaya, 36; Pini, 36; **pinicola,** 36
Ganoderma, 289; amboinense, 287; amboinense lingua, 288; australe, 290; Curranii, 289; Elmerianum, 289; **leptopum,** 289; subrugosum, 289; subtornatum, 290; tornatum, 289; tornatum **subtornatum,** 290; umbraculum, 289

Gayophytum intermedium, 326; racemosum, 326; ramosissimum, 326
Geinitzia, 59, 69; formosa, 69
Genlisa, 93; bifolia, 93
Genlisea, 93
Genlisia, 93
Geonomites, 59, 63, 67, 69; Schimperi, 58, 67, 70
Geranium, 323
Gesneria Harrisii, 341; **jamaicensis,** 341
Geum rivale, 317; urbanum, 95
Gilia aggregata, 323; calcarea, 319; candida, 323; scariosa, 323
GLEASON, H. A., A rearrangement of the Bolivian species of Centropogon and Siphocampylus, 189
Gleditsiophyllum, 67, 69, 71
Gnaphalium exilifolium, 321; Grayi, 322; uliginosum, 317
Gonioma Kamassi, 298, 303, 305
GRAFF, PAUL W., Philippine Basidiomycetes—IV, 285
Graphephorum Shearii, 318
Grewiopsis, 69, 71
Grimaldia, 246, 248; fragrans, 242, 244, 246
Grindelia erecta, 323
Gymnolomia multiflora, 323
Gymnopodium, 80, 82, 83, 85; **antigonoides,** 83, 84; floribundum, 83, 84; **ovatifolium,** 84

Hakea, 95
Halerpestes Cymbalaria, 319, 322
Halymenites, 62, 69; major, 58, 67, 69
Hapalopilus Ramosii, 295
Hedyotis, 92
Helianthella quinquenervis, 320; uniflora, 324
Helianthus petiolaris, 323, 326
Hippuris vulgaris, 316
Holoptelea integrifolia, 304
Hyacinthus paniculatus, 94
Hydrilla, 63
Hydrocotyle **Hazenii,** 335
Hymenoxis helenioides, 323

Iberis arabica, 91
Ibidium porrifolium, 324; strictum, 324
Icmane, 95; nerifolia, 95
Idanthisa, 92; ligustrina, 92
Inoceramus, 66
Inonotus Elmerianus, 294
Iondra, 91; arabica, 91
Iposues, 95; obovata, 95
Iris missouriensis, 317
Isoetes, 95
Ixoca tenella, 92

Jacquinia **Roigii,** 342
Juglans, 59; arctica, 58; similis, 70
Juncoides, 319; intermedium, 320; parviflorum, 320; spicatum, 320
Juncus bufonius, 321; comosum, 321; confusus, 321; Hallii, 318; Jonesii, 321; longistylis, 321; Mertensianus, 317, 319; truncatus, 318; Vaseyi, 321
Jungermannia debilis, 118, 126, 128, 130; isocalycina, 130; pterogonia, 108, 111, 130

Junia, 91; triflora, 91
Juniperus sibirica, 325
Jussieua grandiflora, 93
Justicia, 92; formosa, 92

Kentrophyta aculeata, 325; Wolfii, 325
KERN, FRANK D., Distribution of Berberis vulgaris in Pennsylvania, 263
Kickxia, 95
Kobiosis, 94; mellifera, 94
Koeleria gracilis, 325
Konxikas, 93; acuminatum, 93
Kumara, 94
Kumaria, 94; spicata, 94

Laciniaria punctata, 322
Lactuca sativa, 10
Lappula floribunda, 324
Lathyrus, 93; brachycalyx, 321
Laurophyllum, 69, 71; elegans, 58
Laurus, 63, 71; atanensis, 71; coloradensis, 71; plutonia, 58
Lavauxia flava, 321
Leguminosites, 69, 71; canavalioides, 59, 71
Lejeunea, 107, 112; chimborazensis, 133; debilis, 126, 130; pterogonia, 109
Lemna gibba, 316; minor, 316, 318, trisulca, 316, 318
Leontodon mexicanus, 322
Lepidium, 92, 323; densiflorum, 322
Lepiphaia, 95
Leptodactylon purgens, 325
Leptopuccinia, 40
Lesquerella alpina, 325; curvipes, 324, montana, 323
Levana, 92; uniflora, 92
Lewisia rediviva, 325
Leycesteria, 152
Limnobotrya montigena, 326
Limnorchis borealis, 317; viridiflora, 317
Limosella aquatica, 319
Lindernia grandiflora, 93
Lipospora, 36; **tucsonensis,** 36
Liriodendron, 59, 67; laramiense, 70

Lithophragma australis, 324
Lithospermum multiflorum, 323, 326
Lobelia, 10; corymbifera, 196; surinamensis, 200
Lolium temulentum, 24
Lomake, 93; brachiata, 93
Lonicera, 150–152; fragrantissima, 150; hispidula, 150; japonica, 150; tatarica, 150; thibetica, 150
Ludwigia decurrens, 92
Lupinus, 34; aduncus, 323; Agardhianus, 222, 228; argenteus, 321, 323; bimaculatus, 230, 232, 233; caespitosis, 323; concinnus, 219, 221–223, 225, 227, 228, 230; concinnus **Agardhianus,** 223, 228, 229; concinnus **desertorum,** 223, 230; concinnus **optatus,** 223, 227; concinnus **Orcuttii,** 223, 225; concinnus **pallidus,** 223, 229, 230; densiflorus, 222; desertorum, 222, 230; gracilis, 221, 222, 228; leonensis, 231–233; micensis, 222, 225; microcarpus ruber, 226; odoratus, 226; Orcuttii, 221, 222, 225; pallidus, 222, 229; Shockleyi, 226; sparsiflorus, 222; Stiversi, 219, 220; subcarnosus, 219, 230–232; subramosus, 231, 232; texensis, 230, 232
Lupinus—VI. The Stiversiani, Concinni and Subcarnosi, Studies in the genus, 219
Luronium, 93; natans, 93
Lychnis grandiflora, 92; quadridentata, 92
Lycopersicum esculentum, 10
Lycopodium annotinum, 317
Lycopus virginicus, 94
Lysospora, 31, 37; tucsonensis, 37, 38

Machaeranthera, 323
Macleaya, 92
Macronema suffructicosum, 324
Madia glomerata, 323
Magnolia, 57; Boulayana, 58; Capellinii, 58, 65, 70
Maize and its relatives—I, Anomalies in, 253
Malapoenna horrellensis, 58, 71
Manihotites, 57, 69; georgiana, 58
Marchantia, 241, 245
Marrubium peregrinum, 94
Marzaria, 92; cordata, 92
McATEE, W. L., Notes on Viburnum and the assemblage Caprifoliaceae, 149
McLEAN, FORMAN T., A study of the structure of the stomata of two species of Citrus in relation to citrus canker, 101
Melaleuca hypericifolia, 95; hyssopifolia, 95
Melampodium, 91
Menispermites, 59, 69; variabilis, 58, 70
Menyanthes trifoliata, 316
Menziesia, 95
Merleta, 93; microphyla, 93
Mertensia, 319, 324; brevistyla, 320; ciliata, 320; Leonardi, 320
Mesozoic flora of the Atlantic coastal plain, XIV.—Tennessee, Contributions to the, 55
Micranthes arguta, 319; arnoglossa, 319; rhomboidea, 319
Micropuccinia, 39, 40, 42; **Actinellae,** 40; **Adoxae,** 40; **Aegopodii,** 40; **albulensis,** 42; **alpina,** 40; **andina,** 40; **Anemones-virginianae,** 40; **annularis,** 40; **Arenariae,** 40; **asarina,** 40; **Asteris,** 40; **astrantiicola,** 40; **Betonicae,** 40; **Buxi,** 40; **canadensis,** 40, **Chrysoplenii,** 40; **Circaeae,** 40; **Cnici-oleracei,** 40; **columbiensis,** 40; **Comandrae,** 40; **concrescens,** 40; **conferta,** 40; **conglomerata,** 40; **Cruciferarum,** 40; **Cryptotaeniae,** 42; **Cupheae,** 40; **curtipes,** 42; **Dayi,** 40; **distorta,** 40; **Drabae,** 40; **enormis,** 40; **Epilobii,** 40; **expansa,** 40; **Fergussoni,** 41; **Glechomatis,** 41; **Grindeliae,** 41; **grisea,** 41; **Haleniae,** 41; **Heterisiae,** 41; **heterospora,** 41; **Heucherae,** 41; **Holboelii,** 41; **Huteri,** 41; **Hydrophylli,** 42; **Hyssopi,** 42; **Imperatoriae,** 41; **Jueliana,** 41; **Lantanae,** 41; **lateritia,** 41; **Leveillei,** 41; **Ligustici,** 42; **Linkii,** 42; **Lobeliae,** 41; **Lygodesmiae,** 42; **maculosa,** 42; **Malvacearum,** 41; **Mertensiae,** 42; **Mesneriana,** 41; **mesomajalis,** 41; **Millefolii,** 41; **obliqua,** 42; **ornata,** 41; **Parnassiae,** 41; **Pazschkei,** 41; **Physostegiae,** 42; **Polemonii,** 41; **porphyrogenita,** 41; **praemorsa,** 41; **Pulsatillae,** 41; **Pyrolae,** 41; **Ranunculi,** 42; **recedens,** 41; Ribis, 39; **rubefaciens,** 41; **scandica,** 41; **Seymeriae,** 41; **Sherardiana,** 41; **Silphii,** 41; **Solidaginis,** 41; **Spegazzinii,** 41; **Suksdorfii,** 41; **Synedrellae,** 41; **tuberculans,** 42; **turrita,** 42; **uralensis,** 42; **variolans,** 42; **Veronicarum,** 42; **verruca,** 42; **Virgaureae,** 42; **Vossii,** 42; **Waldsteiniae,** 42; **Xanthii,** 42; **Xylorrhizae,** 42
Millspaughia, 80, 83, 85; antigonoides, 84; leiophylla, 84; ovatifolia, 84
Mimulus Langsdorfii, 319; Lewisii, 317; moschatus, 319; puberulus, 319

Minosites, 69, 70
Misopates, 95; Orontium, 95
Monastes, 94
Moneses, 94
Monheimia, 59, 69; aquisgranensis, 69
Monolepis Nuttalliana, 322
Monosemeion, 93; obliquatum, 93
Moriconia, 69; americana, 59, 69; cyclotoxon, 59, 69
Muehlenbeckia, 81, 82
Muhlenbergia, 324; comata, 317; filiformis, 319; pungens, 326; Wolfii, 319
Myrcia, 57, 60, 67, 71; **arimensis,** 334; havanensis, 58, 71
Myrica, 60, 63, 64; Brittoniana, 59, 70; Johnstrupi, 70; ripleyensis, 70; Torreyi, 66, 70
Myosotis alpestris, 318
Myosurus aristulatus, 319
Myrtophyllum, 69; angustum, 58, 65, 71

Nectandra, 60, 71
Neesiella rupestris, 246
Nemelaia, 95; laurina, 95
Neomillspaughia, 82, 84, 85; **emarginata,** 85; **paniculata,** 85, 88
Neomillspaughia, A new genus of Polygonaceae, with remarks on related genera, 77
Nevrilis, 95
Nevrolis, 95; fuscata, 95
New species of Uredineae—XIII, 31
Nicotiana Tabacum, 10
Notes on Rosaceae—XIII, 159
Notes on Viburnum and the assemblage Caprifoliaceae, 149
Nuttallia densa, 326; multiflora, 326; speciosa, 326
Nyctago jalapa, 92
Nymphaea polysepala, 316
Nyssa, 93

Ocimum polystachyon, 94
Odostima, 94
Oenothera Hookeri, 321
Oldenlandia glomerata, 92
Omphalanthus apiculatus, 113; debilis, 111, 126, 131–133; debilis columbicus, 112; laevis, 133; leioscyphus, 133; martinicensis, 126, 128, 133; pterogonius, 108, 111, 112; subalatus, 108, 111, 112
On the gross structure of an agar gel, 173
Oreobroma nevadensis, 325; pygmaea, 325
Oreocarya thyrsiflora, 323; virgata, 323
Orthilia, 94; parvifolia, 94
Ornithogalum bohemicum, 93
Orthocarpus luteus, 321; purpureo-albus, 318
Oryzopsis Webberi, 326
Osmorhiza, 10
Ouratea **savannarum,** 342
Oxypolis Fendleri, 319
Ozandra, 95

Pachylophus hirsutus, 324; macroglottis, 324
Pachystima, 59
Paliurus, 57; upatoiensis, 58
Panicularia borealis, 316; grandis, 316; nervata, 317; pauciflora, 316, 318; septentrionalis, 316
Parmentiera, 94; edulis, 94
Parnassia fimbriata, 319; parviflora, 317, 318
Pastinaca sativa, 10
Pelotris, 94; paniculatus, 94
PENNELL, FRANCIS W., "Unrecorded" genera of Rafinesque, I.—Autikon Botanikon (1840), 89
Pennsylvania, Distribution of Berberis vulgaris in, 263
Pentapyxis, 153
Pentstemon stenosepalus, 326
Peritoma serrulatum, 323, 326
Persicaria coccinea, 316
Perxo, 94; polystachya, 94
Petrophytum caespitosum, 325
Petroselinum sativum, 9, 10
Phacelia glandulosa, 323; sericea, 324
Phalaris arundinacea, 317
Phellinus Williamsii, 291
Philippine Basidiomycetes—IV, 285
Phlox depressa, 325; Kelseyi, 324, 325
Phoradendron **caerulescens,** 330; **chaguaramasanum,** 330; Ottonis, 331
Phragmites Phragmites, 316; Prattii, 58
Phyllanthus carolinensis, 333; **graminicola,** 333
Phyllites, 69, 72; asplenioides, 58; hydrilloides, 63; hydrocharitoides, 63
Phyllostylon brasiliensis, 299, 300, 303, 305, 306; rhamnoides, 299
Physaria, 323; acutifolia, 325; vitulifera, 325
Phytogeographical notes on the Rocky Mountain region—X. Grasslands and other open formations of the Montane Zone of the Southern Rockies, 315
Pilea **Maxoni,** 340
Pilularia, 95
Pisum sativum, 10

Pithecolobium, 286
Plagiochasma, 242–244, 246, 250
Plantago eriopoda, 322; maritima, 31; Purshii, 322; Tweedyi, 321
Platanus, 67; ripleyensis, 70
Platycarpos, 225
Pleconax, 92
Pleopadium, 93; ciliatum, 93
Plethyrsis, 92; glauca, 92
Pleurogyne fontana, 319
Poa, 324; crocata, 324, 325; interior, 317
Podopterus, 78–82, 86; cordifolius, 79, 80, 86, 87; emarginatus, 78, 85; **guatemalensis,** 79, 80, 86, 87; mexicanus, 78–80, 85, 86
Polemonium Brandegei, 326; confertum, 326; mellitum, 326
Polygonaceae, with remarks on related genera, Neomillspaughia, a new genus of, 77
Polygonum buxiforme, 322; Engelmannii, 321, 323; ramosissimum, 321; sawatchense, 321, 324; Watsonii, 321
Polypodium irioides, 203–205, 271, 272, 274–276
Polypodium irioides, The development of prothallia and antheridia from the sex organs of, 271
Polypodium irioides, Vegetative reproduction and aposporous growths from the young sporophyte of, 203
Polyporus, 292, 295; affinis, 293; amboinensis, 287; anebus, 286; australis, 289; caliginosus, 292; callimorphus, 293; caperatus, 293; cinereo-fuscus, 286; coclear, 288; corrugatus, 286; Elmerianus, 294; endapalus, 292; endothejus, 290; fastuosus, 291; flabelliformis, 294; fornicatus, 287; gibbosus, 288; gilvus, 285; Haskarlii, 292; hirsutus, 294; illotus, 295; japonicus, 287, Kamphoveneri, 286; lateralis, 293; leptopus, 289; lineatus, 291; lingua, 287; mariannus, 286; Merrittii, 291; occidentalis, 295; ostreiformis, 286; pectinatus, 292; plumbeus, 287; pullus, 292; Ramosii, 295; Rhodophoeus, 286; roseo-albus, 292; rubidus, 287; rufo-pictus, 287; rugosus guineensis, 289; scorteus, 295; tornatus, 289; umbraculum, 289; zonalis, 286, 287; zonalis semilaccatus, 286
Polystictus, 295; affinis, 293; bataanensis, 293; callimorphus, 293; **caperatus,** 293; Copelandii, 292; **Elmerianus,** 294; flabelliformis, 293, 294; luteus, 293; macroloma, 293; **nigromarginatus,** 294; occidentalis, 295; perula, 293; **Ramosii,** 295; subcrocatus, 295; xanthopus, 293
Polythelis, 35; fusca, 37, 38; Pulsatillae, 35; **suffusca,** 34
Poria roseo-alba, 292
Potamogeton, 59, 63, 69, 316
Potentilla, 324; Bakeri, 321; diversifolia, 321; effusa, 323; filipes, 321; fruticosa, 95; Hippiana, 323; juncunda, 321; Nelsoniana, 321; Nuttallii, 321; plattensis, 321; propinqua, 321; pulcherrima, 321
Primula incana, 318, 319, 321
Probatea, 95
Protophyllocladus, 59, 69; lobatus, 69
Psammisia **recurvata,** 335
Pseudomonas citri, 101
Pseudopteryxia aletifolia, 326; anisata, 326
Psidium **Loustalotii,** 342
Pterospermites, 57; carolinensis, 58
Ptilocalais tenuifolia, 322
Puccinellia Nuttallii, 322
Puccinia Actinellae, 40; acuminata, 41; **additicia,** 32; Adoxae, 40; Aegopodii, 40; albulensis, 42; alpina, 40; andina, 40; Anemones-virginianae, 40; annularis, 40; Arenariae, 40; asarina, 40; aspera, 41; Asteris, 40; Astrantiae, 40; astrantiicola, 40; australis, 41; Betonicae, 40; bicolor, 40; Buxi, 40; canadensis, 40; Carnegiana, 38; Centaureae, 32; Chrysoplenii, 40; Circaeae, 40; Cnicioleracei, 40; columbiensis, 40; Comandrae, 40; compacta, 40; concrescens, 40; conferta, 40; conglomerata, 40; Coreopsidis, 32; coronifera, 19; Cruciferarum, 40; Cryptotaeniae, 42; Cupheae, 40; curtipes, 42; Dayi, 40, De Baryana, 35, 41; distorta, 40; Drabae, 40; Emiliae, 42; enormis, 40; Epilobii, 40; **Erigeniae,** 33; Erigerontis, 40; expansa, 41; Feugussoni, 41; Geranii-silvatici, 41; Glechomatis, 41; Gonolobi, 42; graminis Avenae, 25; Grindeliae, 41; grisea, 41; Haleniae, 41; Helenii, 40; Heterisiae, 41; heterospora, 41; Heucherae, 41; Holboellii, 41; Huteri, 41; Hydrophylli, 42; Hyssopi, 42; Imperatoriae, 41; **irrequisita,** 32; jaliscensis, 40; Jueliana, 41; Lantanae, 41; lateritia, 41; Leveillei, 41; Ligustici, 42; Linkii, 42; Lobeliae, 41; Lygodesmiae, 42; maculosa, 42; Malvacearum, 41; Merten-

siae, 42; Mesneriana, 41; mesomajalis, 41; Millefolii, 41; obliqua, 42; **opposita,** 33; ornata, 41; **pacifica,** 31; palefaciens, 41; Parnassiae, 41; Pazschkei, 41; Physostegiae, 42; Pimpinellae, 33; Polemonii, 41; porphyrogenita, 41; praemorsa, 41; Pulsatillae, 34, 41; Pyrolae, 41; Ranunculi, 40, 42; recedens, 41; rubefaciens, 41; Saxifragae, 41; scandica, 41; Seymeriae, 41; Sherardiana, 41; Silphii, 41; singularis, 37; Solidaginis, 41; Spegazzinii, 41; Spergulae, 40; suffusca, 35; Suksdorfii, 41; Synedrellae, 41; tuberculans, 42; tumamocensis, 38; turrita, 42; uralensis, 42; variolans, 42; Veronicarum, 42; verruca, 42; Virgaureae, 42; Vossii, 42; Waldsteiniae, 42; Zanthii, 42; Xylorrhizae, 42
Pycnolejeunea, 107
Pyrola minor, 94; secunda, 94; uniflora, 94
Pyropolyporus caliginosus, 292; endotheius, 290; fastuosus, 291; lamaensis, 291; pectinatus, 292; Williamsii, 291
Pyrrocoma, 323

Radicula alpina, 319
Rafinesque, I.—Autikon Botanikon (1840), "Unrecorded" genera of, 89
Ramischia, 94
Ranunculus acriforme, 318; alismaefolius, 317; Eschscholtzii, 317; inamoenus, 318; intertextus, 316; micropetalus, 318; Purshii, 316; reptans, 319; sceleratus, 317, 322
Raphaelia, 69; neuropteroides, 69
Ravenelia, 35; **havanensis,** 35
Rearrangement of the Bolivian species of Centropogon and Siphocampylus, A, 189
Reboulia, 241–246, 248; hemisphaerica, 244, 251
Reboulia hemisphaerica, The air chambers of, 241
RECORD, SAMUEL J., Boxwoods of commerce, 297
Rectolejeunea, 107
Reggeria, 93; bohemica, 93
Relation of the health of the host and other factors to infection of Apium graveolens by Septoria Apii, The, 1
Rhamnus, 59, 71; ripleyensis, 71
Rhaptostylum, 86
Rhizakenia, 95; ovata, 95
Rhus, 93
Riccia, 241; Frostii, 244; glauca, 244
RIKER, A. J., Chondriomes in Chara, 141
Rittera, 94; calcitrapa, 94
Rodatia, 92; reticulata, 92
Ronconia, 91; triflora, 91
Rosa, 152; abietorum, 170; acicularis, 161, 164, 170–172; adenocarpa, 163, 168; amplifolia, 170; anacantha, 161, 164; apiculata, 170, 171; arizonica, 167; arvensis, 160; blanda, 164, 165; Bolanderi, 168; Bourgeauiana, 161, 164, 172; Bridgesii, 169, 171; Butleri, 161, 164; californica, 162, 166, 167; caryocarpa, 165; cinnamomea, 165; collaris, 161, 163; columbiana, 162, 166; Covillei, 163, 168; dasypoda, 169, 171; delitescens, 162, 167; Durandii, 162, 166; Eastwoodiae, 163; Fendleri, 162, 167, 171; fraxinifolia, 165; glaucodermis, 169; gymnocarpa, 165, 168–170, 172; Helleri, 170; kamtschatica, 166; leucopsis, 169, 170; Lyalliana, 165; MacDougalii, 161, 164; Macounii, 163, 167, 168; macrocarpa, 165; megacarpa, 165; micrantha, 160, 161; multiflora, 160; muricata, 172; muriculata, 162, 165, 166, 172; Myriadenia, 162, 166; myriantha, 163, 167; neomexicana, 167; Nutkana, 162, 164–166, 172; piscatoria, 170; pisocarpa, 163, 167, 168, 172; Pringlei, 161, 163, 169; prionota, 169–171; puberulenta, 162, 167; pyrifera, 163, 168; rivalis, 163, 167; rubiginosa, 160, 161; Spaldingii, 162, 164, 165, 172; spithamea, 163, 168; ultramontana, 163, 167, 168; Walpoleana, 161; Woodsii, 163, 165, 167, 172; yainacensis, 161, 164
Rosaceae—XIII, Notes on, 159
Rudbeckia ampla, 320; hirta, 322; laciniata, 39; montana, 320; occidentalis, 320
Rumex densiflorus, 318; hymenosepalus, 317; mexicanus, 317; occidentalis, 317; praecox, 318; subalpinus, 318
RYDBERG, PER AXEL, Notes on Rosaceae—XIII, 159
RYDBERG, PER AXEL, Phytogeographical notes on the Rocky Mountain region—X. Grasslands and other open formations of the Montane Zone of the Southern Rockies, 315
Rynchospora **aripoensis,** 327; Chapmani, 328

Sabalites, 57, 70; carolinensis, 58
Sabicea hirsuta adpressa, 340; **trinitensis,** 339
Sagina saginoides, 319
Sagittaria latifolia, 316
Saliunca, 93; plantaginea, 93
Salix, 59, 67; eutawensis, 58; flexuosa, 58; Gardneri, 70; Lesquereuxii, 58
Salvia **clarendonensis,** 340; splendens, 94
Samaroceltis rhamnoides, 299
Sambucus, 151, 152; canadensis, 150, 151
Sarcobatus vermiculatus, 322
Schaefferia frutescens, 301
Schmidtia, 95
Schmiedtia, 95
Scilla bifolia, 93
Scirpus pauciflorus, 319; validus, 316
Scleria Lindleyana, 341; **motemboensis,** 341
Sclerotium rhizodes, 25
Scrophularia occidentalis, 320
Scubulon, 94; incanum, 94
Sedum stenosepalum, 325
Seguiera **cordata,** 331; **ierensis,** 331
Selaginella, 59, 62; laciniata, 69
Semetum, 92; ramosum, 92
Senecio, 323; amplectens, 326; anacletus, 322; atratus, 322; canovirens, 326; crassulus, 318; cymbalarioides, 318; dispar, 318; Fendleri, 324–326; nephrophyllus, 318; pauciflorus, 317; perplexans, 318; pudicus, 322; Purshianus, 325; rapifolius, 318; semiamplexicaulis, 318; triangularis, 320; werneriaefolius, 325
Septoria, 2–4, 7–10, 16, 17, 20, 23, 25–27; Apii, 2, 5, 24; Apii graveolentis, 2; Petroselini, 5
Septoria Apii, The relation of the health of the host and other factors to infection of Apium graveolens by, 1
Sequoia, 57; ambigua, 58; Reichenbachi, 58
Shortia, 92; dentata, 92
Sieversia ciliata, 324; grisea, 324
Silaus Besseri, 10
Silene, 92; acaulis, 92; antirrhina, 92; conica, 92; quadridentata, 92; quadrifida, 92
Siphocampylus, 189–191; aggregatus, 199; **altiscandens,** 198; andinus, 199; angustiflorus, 198; argutus, 197; aureus, 195; aureus latior, 195; bilabiatus, 197; bilabiatus glabratus, 197; boliviensis, 196; correoides, 196; corymbiferus, 196; corymbiferus gracilis, 197; elegans, 198; elegans boliviensis, 198; elegans cordatus, 199; flagelliformis, 198; giganteus latifolius, 193; gloriosus, 194; gracilis, 197; gracilis glabris, 196; incanus, 193; Kuntzeanus, 195; membranaceus, 196; oblongifolius, 196; Orbignianus, 195; radiatus, 193; radiatus minor, 193; reflexus, 199; Rusbyanus, 192; subcordatus, 197; tunarensis, 192; **tunicatus,** 194; tupaeformis, 197; unduavensis, 199; Vatkeanus, 193; volubilis, 195; Williamsii, 196
Siphocampylus, A rearrangement of the Bolivian species of Centropogon and, 189
Sisymbrium Nasturtium-aquaticum, 316, 318
Sisyrinchium alpestre, 318
Sitanion elymoides, 326
Sium cicutifolium, 316
Smidetia, 95
Smilax, 94
SMITH, CHARLES PIPER, Studies in the genus Lupinus—VI. The Stiversiani, Concinni and Subcarnosi, 219
Solanum, 94; **capillipes,** 338; **Hazenii,** 338; **ierense,** 338; tuberosum, 94
Solidago, 323, 324; glaberrima, 322
Sophoclesia major, 326; **trinitensis,** 335
Sparganium angustifolium, 316; minimum, 316
Spartina gracilis, 322
Sphagnum, 204, 271
Spirogyra, 178
Stachytarpheta, 93
STEIL, W. N., The development of prothallia and antheridia from the sex organs of Polypodium irioides, 271
STEIL, W. N., Vegetative reproduction and aposporous growths from the young sporophyte of Polypodium irioides, 203
Stelmanis, 92
Sterculia Snowii tennesseensis, 71
Stipa speciosa, 326
Stomata of two species of Citrus in relation to citrus canker, A study of the structure of the, 101
Streblina, 93; denticulata, 93
Streptilon, 95; odoratum, 95
Studies in the genus Lupinus—VI. The Stiversiani, Concinni and Subcarnosi, 219
Studies of West Indian plants—X, 327
Study of the structure of the stomata of two species of Citrus in relation to citrus canker, A, 101
Subularia aquatica, 319

Swertia scopulina, 318

Tabebuia pentaphylla, 298, 299; **saxicola,** 343
Taeniopteris, 69
Targionia, 244; hypophylla, 244
Tartonia, 95; obovata, 95
Tatina, 93; parviflora, 93
Taxilejeunea, 107, 108, 115; caripensis, 128; chimborazensis, 110; debilis, 126, 127, 129–131, 133–135; **densiflora,** 121, 124–126, 129; dissitifolia, 135; **jamaicensis,** 117–120, 122, 125–127, 129, 135; martinicensis, 127, 133–135; pterogonia, 107–109, 111–113, 118, 120, 121, 125–127, 129, 131, 132, 136; sulphurea, 125
Taxilejeunea pterogonia and certain allied species, 107
Tecoma pentaphylla, 298
Teleutospora, 38, 39; **bauhiniicola,** 39; **Rudbeckiae,** 39; **Solidaginis,** 39
Telospora, 31, 38, 39
Terminalia **nyssaefolia,** 333
Termontis, 95; racemosa, 95
Ternstroemites, 58, 60, 64, 67, 69, 71
Tessaranthium, 324
Tetradymia inermis, 322
Tetraneuris brevifolia, 325; lanigera, 324, 325; leptoclada, 324
Thalictrum megacarpum, 321; venulosum, 321
Thibaudia latifolia, 325
Thlaspi arabica, 91; Nuttallii, 323
THOMAS, H. E., The relation of the health of the host and other factors to infection of Apium graveolens by Septoria Apii, 1
Tillaeastrum aquaticum, 318, 319
Tillandsia aloifolia, 329; **viscidula,** 328
Tithymalus, 34; Palmeri, 33
Tournefortia **barbadensis,** 343
Townsendia grandiflora, 323; montana, 325; strigosa, 324, 325
Tradescantia, 178
Tragia, 93
Trametes devexa, 295; dibapha, 293; lanata, 295; occidentalis, 295; scalaris, 295; Wahlbergii, 295
Tranzschelia, 36, 37; cohaesa, 37, 38; punctata, 37, 38
Trifolium, 152; dasyphyllum, 325; Kingii, 321; nanum, 325; Rydbergii, 321
Triglochin maritima, 316, 322; palustris, 316, 322
Trigonia, 66
Trimista, 92; levigata, 92
Triosteum, 151, 152
Tristania conferta, 302
Troxilanthes, 93; angustifolia, 93
Tulista, 94; margaritifera, 94
Tumion, 57; carolinianum, 58
Tursitis, 95; Elatine, 95
Tyromyces Merrittii, 291

"Unrecorded" genera of Rafinesque, I.—Autikon Botanikon (1840), 89
Uredineae—XIII, New species of, 31
Uromyces, 34, 38, 39; bauhiniicola, 39; **coördinatus,** 33, 34; hyalinus, 38; occidentalis, 34; Rudbeckiae, 39; Solidaginis, 39; Tranzschelii, 34
Urtica gracilis, 319, 320
Utricularia minor, 316; vulgaris, 316

Vaccinium, 335
Valeriana, 324; calcitrapa, 94; rupestris, 94
Vallisneria, 63
Vandera, 93; discolor, 93
Vegetative reproduction and aposporous growths from the young sporophyte of Polypodium irioides, 203
Veratrum tenuipetalum, 321
Veronica, 95; americana, 316; Wormskjoldii, 317, 320
Vestia, 92; lycioides, 92
Viburnum, 149, 150, 152, 153; acerifolium, 150; cassinoides, 149, 150; dentatum, 150; Lantana, 150; Lentago, 150; nudum, 149, 150; Opulus, 150–152; pubescens, 150
Viburnum and the assemblage Caprifoliaceae, Notes on, 149
Vicia dissitifolia, 318; oregana, 317; sparsiflora, 317; trifida, 321
Viola bellidifolia, 321; nephrophylla, 321; palustris, 317; pedatifida, 321; septentrionalis, 321; vallicola, 321; venosa, 321
Vitex umbrosa, 302

Wahlbergella comosa, 323; Drummondii, 323
WEATHERWAX, PAUL, Anomalies in maize and its relatives—I, 253
West Indian plants—X. Studies of, 327
Widdringtonites, 59, 69; Reichii, 59, 69
Wyethia amplexicaulis, 324

Xamilenis, 92

Zanthoxylum **Harrisii,** 340
Zeliauros, 95; repens, 95
Zizyphus, 60; laurifolius, 58, 71